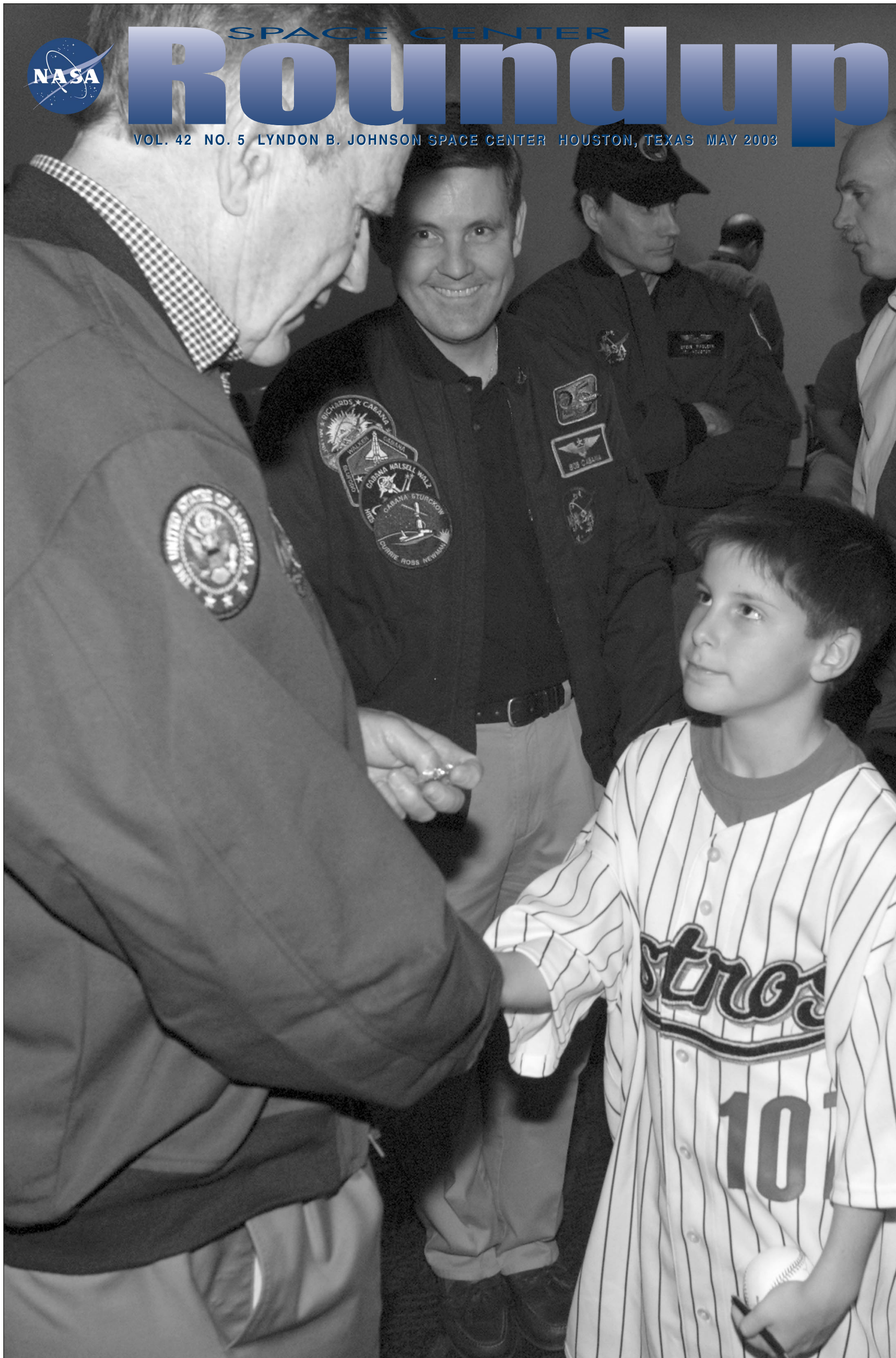


# SPACE CENTER Roundup

VOL. 42 NO. 5 LYNDON B. JOHNSON SPACE CENTER HOUSTON, TEXAS MAY 2003



NASA JSC 2003e27681

President George H. W. Bush shakes hands with David Ramon, son of STS-107 Payload Specialist Ilan Ramon, at the Houston Astros' home opener on April 1. The Astros honored the crew with a pregame ceremony and will be wearing the STS-107 patch on their uniforms during the 2003 season. Bob Cabana, Director of the Flight Crew Operations Directorate, can be seen in the background along with Astronaut Steve MacLean and Bill Readdy, Associate Administrator of the NASA Office of Space Flight. **For more on the Astros' home opener, please see page 6.**





## Life is tough, but it's tougher if you don't prepare

I was chairing a decision-making board a number of years ago where I felt I was really not prepared to make a decision. In other words, I had not done my homework!

It was clear to most folks in the meeting that things were not going well. A friend, who was a great creator of cartoons, was busily sketching away on a transparency. When he finished, he walked to the front of the room and put it on the viewgraph machine. It was a great caricature of John Wayne stating the obvious: "Life is tough, but it is tougher if you are stupid!"

That has remained with me for all these years to remind me to always prepare for difficult meetings, difficult tasks and potential natural disasters. Regardless of the endeavor, preparation is the key to success or, in some cases, survival.

Just remember: Life is tough but tougher if you do not prepare, and to not prepare is "stupid." So sayeth John Wayne.

## GUEST COLUMN

By Bob Gaffney, JSC Emergency Preparedness Manager



Johnson Space Center is part of a coastal community, and that means that employees need to be prepared for a major hurricane. Are you? With a little planning and common sense, you can be better prepared for the unexpected.

Some of the things you can do to prepare, such as making a family emergency plan, assembling a supply kit and staying informed, are the same for most emergencies. The most critical part of your plan should be to prepare to evacuate in advance, decide when to leave (before highway congestion blocks your route) and then stick to your plan, even if the storm eventually makes landfall somewhere else.

Possibly the most unexpected aspect of hurricane planning is the return to your community. When you decide to protect yourself and your loved ones by evacuating to a safe area, take time to relax at your destination and get plenty of rest. Monitor news broadcasts for weather bulletins for your community, but don't consider returning immediately after the storm passes beyond the Houston/Galveston area. Public health and municipal officials may need additional time to restore services for the return of citizens to the community.

Take an emergency supply kit with you, but remember that you probably won't need it at your destination. Rather, you may need it when you return to your own community. Your roads back may be blocked by fallen trees, power lines or other debris, and utility service may not be available depending on how much damage the surge, flooding and high winds did throughout the region.

Local law enforcement and the Texas Department of Public Safety will establish roadblocks to prevent entry into unsafe areas until public safety, health and emergency management officials declare that the community is safe – that the roads are clear, there is a sufficient supply of uncontaminated water and food, and local government is operating. This is for your protection and for the protection of the entire region.

Finally, before deciding to return home, consider whether you or your family can live in the challenging conditions that frequently follow the impact of a severe weather event such as a hurricane, devastating flood or tornado. After Hurricane Alicia 20 years ago, some areas of Clear Lake had no electricity for more than a week. Some roads were impassable for many days because floodwaters receded slowly.

Planning for emergencies isn't difficult or time-consuming, but it can enhance your survival opportunities during and after a disaster. Make a plan and an emergency supply kit and stay informed. Emergency planning information is available from your community's emergency management, fire or police department or from the ready.gov Web site at <http://www.ready.gov/>.

Please note the following hurricane-survival tips. For more details, including local emergency phone listings and what to include in emergency supply kits, **see pages 4 and 5.**

### During the storm

When a hurricane watch is issued, continue normal activities and stay tuned to radio and television for further weather advisories. Also, check your supplies and restock the necessary items as needed, and take the below steps to ensure that you will be prepared if the weather worsens.

#### When a Hurricane Watch is issued for your area:

- \* Monitor official bulletins on radio, TV or NOAA Weather Radio
- \* Fuel car(s)
- \* Check mobile home tie-downs
- \* Moor small craft or move to safe shelter
- \* Stock up on canned provisions
- \* Check supplies of special medicines
- \* Check batteries for radios and flashlights
- \* Secure lawn furniture and other loose material outdoors
- \* Tape, board or shutter windows to prevent shattering
- \* Wedge sliding glass doors to prevent their lifting from their tracks

#### When a Hurricane Warning is issued for your area:

- \* Stayed turned to radio, TV or NOAA Weather Radio for official bulletins
- \* Board up garage and porch doors
- \* Move valuables to upper floors
- \* Bring in pets
- \* Fill containers (including bathtubs) with several days' supply of drinking water
- \* Turn up refrigerator to coldest setting and don't open unless necessary
- \* Use phone only for emergencies
- \* Stay indoors on the downwind side of house, away from windows
- \* Beware of the eye of the hurricane
- \* Leave mobile homes
- \* Leave areas that might be affected by storm surge or stream flooding
- \* Leave early, in daylight if possible
- \* Shut off water and electricity at main stations
- \* Take small valuables and papers, but otherwise travel light
- \* Make arrangements for pets
- \* Lock up house
- \* Drive carefully to nearest designated shelter using recommended evacuation routes

### After the All-Clear is given:

- \* Monitor media broadcasts from public officials to decide when to return to your community. Public safety and health officials must assess damage in local communities and determine when residents can return
- \* Drive carefully; watch for dangling electrical wires, undermined roads and flooded low spots
- \* Report broken or damaged water, sewer and electrical lines
- \* Use caution re-entering home
- \* Check for gas leaks
- \* Check food and water for spoilage

### Corrections

There are two corrections to last month's article entitled "Soyuz at a glance."

1. While Expedition 6 Commander Ken Bowersox and NASA ISS Science Officer Don Pettit are the first American Astronauts to land in a Soyuz spacecraft, Dennis Tito was actually the first American to do so.

2. While the components of the newer Soyuz TMA can stay in space for up to one year, the spacecraft itself will continue to be replaced around every six months, as was the Soyuz TM. The Roundup regrets these inaccuracies.



# A living reminder

## STS-107 Memorial tree-planting ceremony

- A. Bob Cabana, Director of the Flight Crew Operations Directorate, speaks at the ceremony.  
B. Center Director Jefferson D. Howell, Jr. carries soil to one of the STS-107 trees.

Photos by Robert Markowitz

A tree-planting ceremony was held on April 16 to honor each of the STS-107 crewmembers: Rick Husband, Willie McCool, Mike Anderson, Kalpana Chawla, Dave Brown, Laurel Clark and Ilan Ramon. The seven trees were planted adjacent to Building 111 on Fifth Street in the same area where several trees have been planted in memory of other deceased astronauts.

The families of the crewmembers were led into the ceremony by Houston Highlander Ian Martin and his bagpipe music. Former astronauts and JSC employees were in attendance, along with friends and family members of the crew. The ceremony began with a brief dedication by Center Director Lt. Gen. Jefferson D. Howell, Jr. and Director of the Flight Crew Operations Directorate Robert D. Cabana. Their remarks were followed by a statement from the families and a ceremonial planting of the trees. A minute of silence concluded the ceremony. ❖



NASA JSC 2003e30931



NASA JSC 2003e30932

Background photo:  
NASA JSC 2003e30917



# Surviving the season

It's that time of year again—

learn how to protect yourself, your family and your home during hurricane season

Are you prepared for a major hurricane? When a hurricane strikes the Houston/Galveston area, your life and property will be in danger – not only when the storm threatens, but potentially during recovery if you haven't made plans for your evacuation and return.

Some of the things you can do to prepare for a hurricane, such as assembling a supply kit and developing a family communications plan, are the same for most emergencies. With a little planning and common sense, you can be better prepared for the unexpected.

Bob Gaffney, JSC Emergency Preparedness Manager and a member of the JSC Hurricane Rideout Team, encourages employees to make plans for their personal protection well in advance of a hurricane.

"Now would be a good time," Gaffney said. "Personal protection plans should anticipate the arrival of tropical storm-force winds 12 hours or more before a hurricane makes landfall, and expect more of the same on the backside of the hurricane. People who don't evacuate in advance of a severe storm could be isolated in their homes for an extended period of time before community officials are able to restore damaged utilities and re-establish normal municipal operations," Gaffney said.

## The first step: a personal disaster plan

When creating your personal disaster plan, realize that you must be prepared to take care of yourself. Texas does not have mandatory evacuation requirements; you cannot be forced to leave your home. If you choose not to evacuate, emergency management officials will not be able to come to your aid when rising water threatens, your home is flooded and there is no electricity. You must be prepared to survive by yourself for three to seven days with a sufficient supply of food and water.

Check with your city or county office of emergency management for evacuation routes and plan alternate routes in case of flooding or traffic congestion. Don't wait until a hurricane is in the Gulf.

Insurance on your property and personal belongings is another important part of your disaster preparedness – but it must be done now. Once a hurricane is in the Gulf, policies cannot be written. To be sure that your insurance claims will be paid, you must document your property and its contents not only with written lists, but also with pictures or videos.

## Stay or Leave?

In general, the ultimate decision to stay or leave will be yours. Study the following list and carefully consider the factors involved:

- \* Make plans for action at the beginning of hurricane season (June)
- \* Learn the storm surge history and elevation of your area
- \* Learn safe routes inland
- \* Learn location of official shelters
- \* Trim back dead wood from trees around your home
- \* Check for loose rain gutters and downspouts
- \* If shutters do not protect windows, stock boards to cover glass
- \* If you live on the coastline or offshore islands, plan to leave
- \* If you live near a river or in a flood plain, plan to leave
- \* If you live in a mobile home, always plan to relocate

Please take these suggestions seriously now while there is time to get ready. You must be prepared to take care of yourselves and be responsible for your safety. You can build a new home and buy new furniture, but you and your loved ones have to survive first.

## Evacuation smarts

Deciding on an evacuation destination ahead of time is important. If you are staying with family or friends, check before you leave that they will be home. If you are going to a hotel, call for a reservation before you leave. Be sure to have a full tank of gas and a map with alternate routes to your destination marked in case of flooding or traffic jams.

If you have followed your disaster plan and taken the necessary steps to be prepared for a hurricane, you will be able to evacuate immediately when local officials give the recommendation. The evacuation recommendation will be given as early as possible to allow time for everyone to leave. The sun will be shining; there will be no rain, wind or high tide. But if you do not leave then, it may be too late. If you wait until you are certain the hurricane is going to make landfall in this area, you may be unable to leave. The roads could be flooded, and high winds will make it dangerous to cross bridges or high-level freeways. You will be trapped.

As for evacuation traffic, a lot of people forget that getting up Houston's main highways isn't a problem during the initial stages of evacuation. The problem occurs outside of Houston, where all escape routes are reduced to two-lane roads that become jammed quickly and then back up into the city. If your emergency plan includes evacuation, you have the best chance of succeeding if you plan ahead to leave early and stick to your agenda.

If you cannot evacuate by yourself because of physical/medical reasons or lack of transportation, you must ask family members, neighbors, friends or your church group for help. Local and county governments may not be able to help you evacuate. There is no public transportation specifically designated for evacuation. Legal and liability issues add to the problem. Call your community's emergency management office and inquire about what help is available.

If you decide to go to a Red Cross shelter, be aware of the following fact: there will be no Red Cross shelters open in coastal communities before or during a hurricane. You need to go north of Harris County to seek shelter for safety reasons. Also, there is no medical help available in a Red Cross shelter. After the hurricane, shelters will be open in coastal communities for people whose homes have been damaged or destroyed.

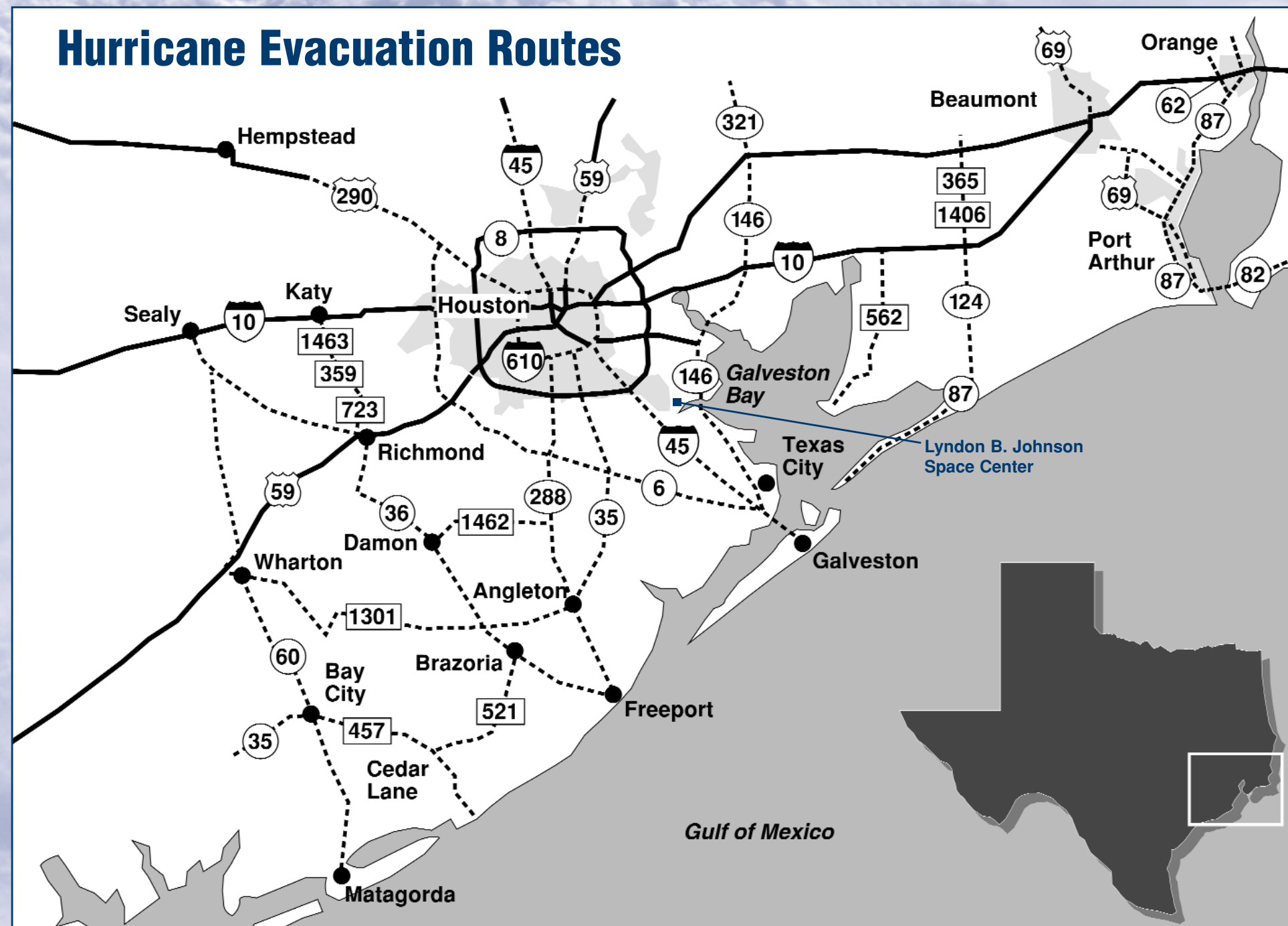
## Returning home

Residents of evacuated areas will not be allowed to return to their homes until public safety, health and emergency management officials declare that the community is safe for them to do so.

Supplies that you need to have stored at home to use when you return include bottled water, flashlights and lanterns, batteries, and nonperishable foods.

## Insurance

Before evacuating, put inventories and pictures of your valuables, as well as your insurance policy, in a safe deposit box or other safe place away from your home. Secure your home as much as possible before leaving. Leave a telephone number where you can be reached. Paint your address and telephone number on a piece of wood or the side of your home. Don't paint your insurance policy number.



## Emergency Numbers

JSC Emergency Information Line (toll free)	x33351	1-877-283-1947	El Lago	281-326-2658
JSC Employee News Service	x36765		Friendswood	281-996-3335
Emergency	911		Galveston (city)	409-797-3710
Harris County Flood Control (river levels)	713-881-3100		Galveston County (north)	1-800-393-0203
National Weather Service	281-337-7895		Harris County	713-881-3100
Texas Highway Department (road closures)	1-800-452-9292		Hitchcock	409-986-5559
<b>Emergency Management Offices</b>			Houston (city)	713-884-4500
American Red Cross	713-526-8300		La Marque	409-938-9260
Galveston County	409-945-7200		La Porte	281-471-3607
Pasadena	713-943-7000		League City	281-338-4837
Clear Lake Office	281-282-6039		Nassau Bay	281-333-4200
Baytown	1-281-420-6556		Pasadena	281-475-5588
Clear Lake Shores	281-538-0659		Pearland	281-652-1951
Deer Park	281-478-7298		Santa Fe	409-925-2000
Dickinson	281-337-4700		Seabrook	281-291-5610
			Taylor Lake Village	281-326-2843
			Texas City	409-643-5707
			Webster	281-332-2711

After the storm, immediately report to your insurance company. It may take a while to reach your agent, so be patient. When you get through, be ready to provide your policy number, address and a phone number where you can be reached, especially if you will be staying elsewhere. Take "after" videotape and still pictures of your home and damage to help with your claim.

Keep receipts for all expenses after the storm, such as repairs, food, lodging and emergency equipment. Much of it may be covered under your insurance and some is tax-deductible.

Make sure to take pictures after repairs are done. If you have another loss, you don't want your agent to think the first repairs were never done.

When the adjuster shows up, ask for identification. Beware of fly-by-night repair operations and always check credentials. ❖

## JSC Center Status:

<http://www.jsc.nasa.gov/pao/roundup/centerstatus/index/>

**National Weather Service's National Hurricane Center/Tropical Prediction Center:**

<http://www.nhc.noaa.gov>

## What should go into your hurricane preparedness kit?

If you are confined to your home or choose to evacuate as a result of severe weather or disaster, a disaster supply kit can be useful.

- ✓ Keep it readily accessible for safety, comfort and convenience. All household members should know where it is stored.
- ✓ Replace food, water, medical supplies and batteries as needed.
- ✓ Place the items you need during an evacuation in an easy-to-carry container, such as a backpack or plastic storage tub.
- ✓ Select the items your family will need from the suggestions in the Emergency Supply Kit pictured below.
- ✓ Don't use your emergency supply kit at your evacuation destination. You may need it when you return to your community if utilities and grocery stores aren't available for a couple of days. Eat where you are sheltered.

## Emergency Supply Kit

- Flashlight
- Tissues
- Radio
- Pocket Knife
- Sanitary Supplies
  - Toothbrush
  - Soap
  - Shampoo
  - Sponge
  - Cleanser
  - Bleach
- Batteries
- Pencils
- Drinks/Juices
- Nuts
- Rice – Pasta
- Soups
- Canned Foods
- Water (1 gal per person per day)



30-gallon trash barrel

- First-Aid Kit
- Medicines
- Rubbing Alcohol
- First-Aid Handbook
- Towels
- Blankets
- Paper Towels
- Toilet Paper
- Candles
- Matches
- Can Opener
- Peanut Butter
- Crackers
- Dried Beans
- Change of Clothing
- Foul Weather Gear
- Sterno, Stove, Fuel
- Garbage Bags
- Cooking Utensils
  - Cooking Pot
  - Plastic Dishes
  - Silverware
  - Aluminum Foil



## Astros honor their namesakes

**B**aseball and spaceflight came together on April 1 as the STS-107 crew was honored at the Houston Astros' home opener. Families and friends of the STS-107 crew simultaneously threw out seven first pitches to start the Astros' 2003 season, during which the players are wearing the STS-107 mission patch on their uniforms.

The pregame tribute also included a live performance by Patti LaBelle, who sang NASA's anthem "Way Up There" while footage of the STS-107 crew was shown on Minute Maid Park's video screen. NASA's Astronaut Corps and 107 Mission Representatives were also introduced, and the Expedition 6 crew greeted Houston baseball fans from the International Space Station. Another moving segment of the tribute was the national anthem sung by Darius Rucker. During Rucker's performance, Challenger, a trained bald eagle named for the orbiter that was lost in 1986, soared around the stadium. After all the pregame activities, the Astros went on to beat the Colorado Rockies 10-4.

The Houston Astros, formerly called the Houston Colt .45s, were renamed after NASA's Astronauts in 1965 because of Houston's importance to the space program. Nearly 40 years later, the team is still honoring those ties. NASA astronauts will visit some of the cities the Astros play in during the 2003 season to continue the mission of telling the world about the importance of space research, development and exploration. ❖



NASA JSC 2003e27660  
**Darius Rucker**  
performs the  
national anthem.

Photos by James Blair



NASA JSC 2003e27620  
**Patti LaBelle** sings  
'Way Up There'  
during the opening  
ceremonies. The song was  
written for NASA by Tena  
Clark to serve as the  
Agency's anthem, as well  
as to commemorate the  
upcoming Centennial  
of Flight. However, since  
Feb. 1, the song has also  
served as a fitting tribute  
to the crew of STS-107.



NASA JSC 2003e27644

**Evelyn Husband, wife of STS-107 Commander Rick Husband, displays an Astros jersey with her husband's name and mission number on the back to her son, Matthew. Each STS-107 crewmember's family received similar jerseys from the Astros.**

NASA JSC 2003e27622

**The Expedition 6 crew – Commander Ken Bowersox, NASA ISS Science Officer Don Pettit and Flight Engineer Nikolai Budarin – greet the spectators at Minute Maid Park from the International Space Station, while astronauts and Mission Representatives carry the American flag off the field.**



NASA JSC 2003e27668

**Friends and family of the STS-107 crewmembers deliver seven first pitches to begin the Astros 2003 season.**





# Baseball pitched aboard space station finally “caught” by Space Center Houston

The International Space Station makes history again – this time, baseball history. The 2002 World Series in Anaheim, Calif. began with the fastest pitch ever: the ball broke all major league records and traveled at 17,500 miles per hour aboard the ISS.

Now this historic baseball, thrown by Expedition 5 NASA ISS Science Officer Dr. Peggy Whitson to Commander Valery Korzun, will have a permanent home at Space Center Houston. ISS Program Manager Bill Gerstenmaier joined Whitson on April 13 to present the all-star baseball “pitched” from space to the visitors’ center. They were also joined by members of the Bellaire Little League as well as Roger Bornstein, Director of Marketing at Space Center Houston, who accepted the ball on behalf of the visitors’ center.

The ceremony, which began with an autograph session by Whitson, included a replay of the very high-altitude pitch as it was recorded by Flight Engineer Sergei Treshev. The pitch was downlinked to the Mission Control Center and broadcast to fans at Anaheim’s Edison Field, as well as to millions of television viewers.

When the baseball, along with the Expedition 5 crewmembers, came back to Earth in December 2002, it was signed by Whitson and by World Series ballplayers. Fans of baseball and spaceflight alike can now enjoy seeing the ball at its new home in Space Center Houston. ♦



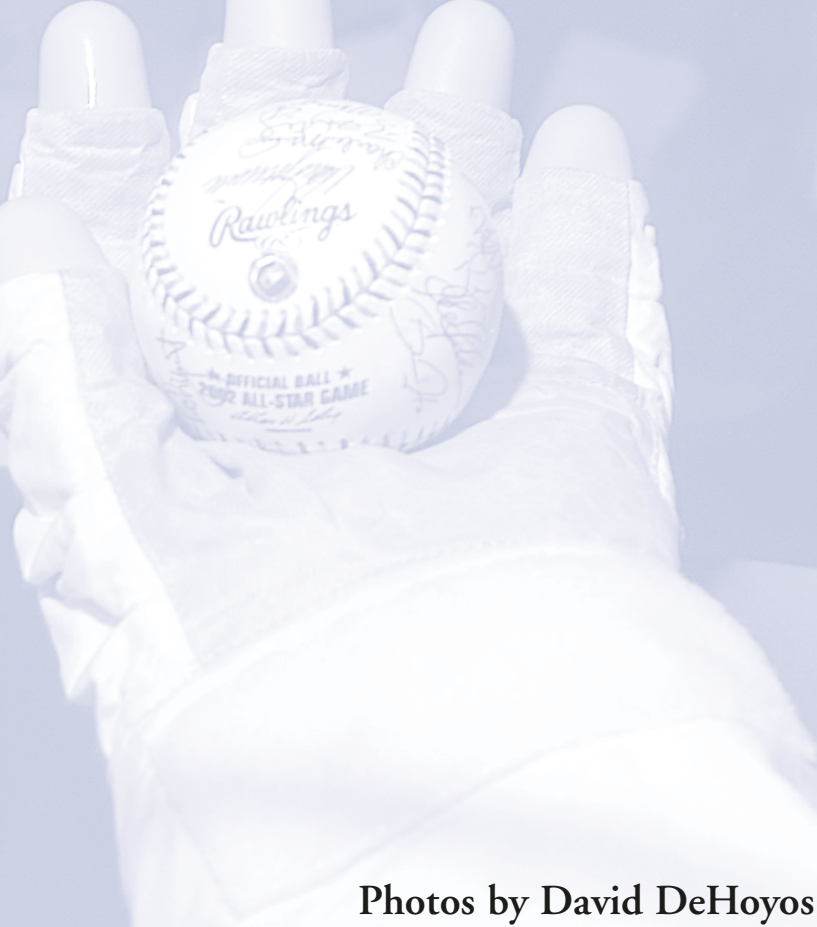
NASA JSC 2003e29441

Expedition 5 NASA ISS Science Officer Peggy Whitson presents to Space Center Houston the baseball that she threw to Expedition 5 Commander Valery Korzun to open the 2002 World Series.

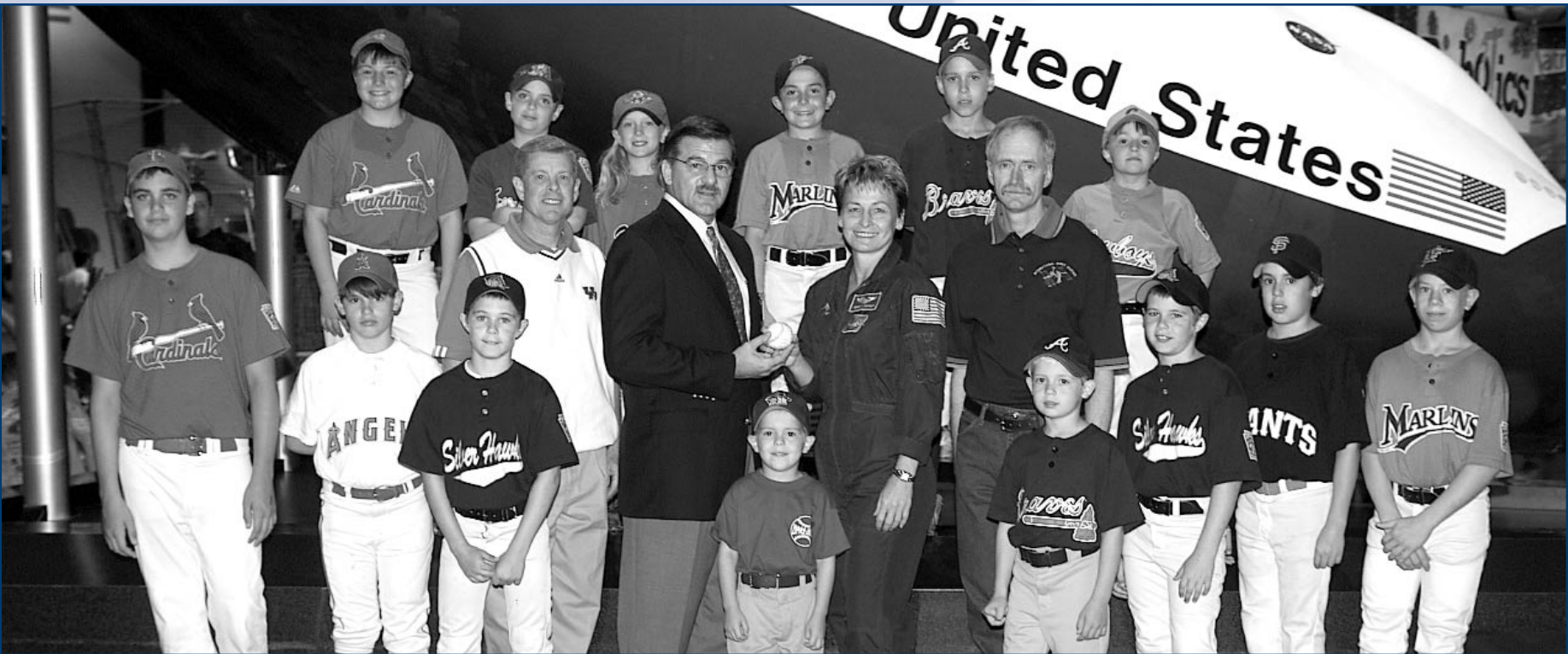


NASA JSC 2003e29433

Whitson signs an autograph for a young fan.



Photos by David DeHoyos



NASA JSC 2003e29449

Whitson is pictured with Rob Kelso, NASA Executive at the Houston Technology Center; Roger Bornstein, Director of Marketing at Space Center Houston; Bill Gerstenmaier, ISS Program Manager; and just a few of the young baseball players who witnessed the presentation of the historic baseball.



# Profiles

May is Asian-Pacific American Month



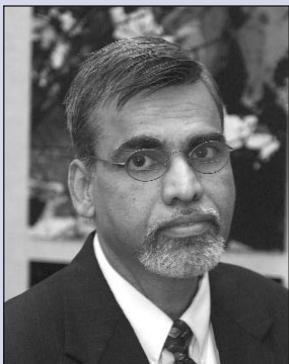
## Panna Amin

**Time at JSC:** 24 years  
**Organization:** Space Vehicle and Mockup Facility  
**Position title:** Space Shuttle Mockup Manager and Facility Manager  
**Education:** Bachelor's of science in electrical engineering from City University of New York  
**Place of birth:** Baroda, India  
**Hobbies:** Reading, traveling, aerobics and spending time with my husband, children and grandson  
**What does Asian-Pacific American Month mean to you?** It is a time to share one of the oldest cultures in the world and learn something from the new culture/generation.  
**Favorite words of wisdom:** Work towards your goals and you will live the life of your dreams.



## Anh Huynh

**Time at JSC:** Almost 15 years  
**Organization:** Extravehicular Activity (EVA) Project Office  
**Position title:** EVA Process Control Lead  
**Education:** Bachelor's of science in mechanical engineering and Master's of science in industrial engineering, both from the University of Houston  
**Place of birth:** Saigon, Vietnam  
**Hobbies:** Spending quality time with family and friends  
**What does Asian-Pacific American Month mean to you?** Opportunities and responsibilities! This observance reminds me of the countless opportunities being offered by this great nation to the refugees and newcomers from southeast Asia. The greatest opportunity of all was to become a U.S. citizen, a representative of the brave and the free. Along with these precious opportunities are the responsibilities to serve and to protect this great nation. This observance is an opportunity for all Asian-Pacific Americans to reflect on their personal contribution and to renew their personal commitment to serve this great nation.  
**Favorite words of wisdom:** Life is short, so live it to the fullest.



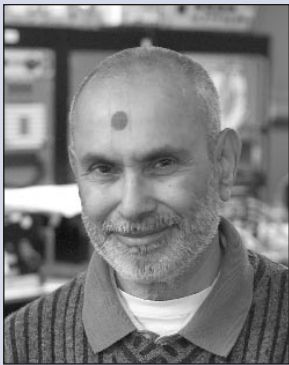
## Dr. Kamlesh Lulla

**Time at JSC:** 15 years  
**Organization:** Space and Life Sciences  
**Position title:** Chief Scientist for Earth Observations  
**Education:** Bachelor's of science, Master's of science, Ph.D. in Earth Sciences and Ph.D. in Space Remote Sensing  
**Place of birth:** India  
**Hobbies:** Map collecting, writing for popular magazines, sciences, history  
**What does Asian-Pacific American Month mean to you?** Celebrating the "diversity of the NASA team" is important for all of us. This is one of the ways to show that our "diversity" is our strength, and makes us a stronger NASA team.  
**Favorite words of wisdom:** "Life is either a daring adventure or nothing. Security does not exist in nature, nor do the children of men as a whole experience it. Avoiding danger is no safer in the long run than exposure." – Helen Keller  
"Freedom is not worth having if it does not include the freedom to make mistakes." – Mahatma Gandhi  
"Leadership and learning are indispensable to each other." – John F. Kennedy



## Stacey T. Nakamura

**Time at JSC:** 22 years  
**Organization:** Safety, Reliability and Quality Assurance Office  
**Position title:** Chief, Safety and Test Operations Division  
**Education:** Bachelor's of science in chemical engineering from Massachusetts Institute of Technology  
**Place of birth:** Los Angeles, Calif.  
**Hobbies:** Music (all categories), play keyboards for a local band, aquarium fanatic  
**What does Asian-Pacific American Month mean to you?** It is a time to reflect on my family's heritage as well as appreciate and learn about the other Asian-Pacific American cultures. Although my heritage is Japanese-American, my parents were born and raised in Hawaii, which has a rich and diverse culture. I grew up enjoying Chinese, Polynesian, Portuguese, and Japanese foods and customs.  
**Favorite words of wisdom:** Always remember that your employees are real people, with real needs and feelings: they can be much more than "items that are managed." They must be led and inspired.



## Suresh M. Patel

**Time at JSC:** 15 years  
**Organization:** Aircraft Operations Divison  
**Position title:** Aerospace Engineer  
**Education:** Master's degree  
**Place of birth:** India  
**Hobbies:** Volunteering for my temple in Stafford, Texas, and traveling  
**What does Asian-Pacific American Month mean to you?** Awareness of ethnic diversity and understanding others' cultural values make us all better persons.  
**Favorite words of wisdom:** Working as a team is a guarantee for success.

## SPACE CENTER Roundup

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